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**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

14 CFR Part 25

[Docket No. FAA-2000-8511-2; Notice No. 00-17]

**RIN:** 2120-AG92

**FAR/JAR Harmonization Actions; Revisions to Requirements Concerning Airplane Operating Limitations and the Content of Airplane Flight Manuals for Transport Category Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Federal Aviation Administration proposes to amend the airworthiness standards for transport category airplanes concerning airplane operating limitations and the content of airplane flight manuals. Adopting this proposal would eliminate regulatory differences between the airworthiness standards of the U.S. and the Joint Aviation Requirements of Europe, without affecting current industry design practices.

**DATES:** Send your comments on or before [Insert date 60 days after date of publication in the Federal Register.]

**ADDRESSES:**

Address your comments to Dockets Management System, U.S. Department of Transportation Dockets, Room Plaza 401, 400 Seventh Street SW., Washington, DC 20590-0001. You must identify the docket number FAA-2000-8511 at the beginning of your comments, and you should submit two copies of your comments. If you wish to receive confirmation that the FAA has received your comments, please include a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. FAA-2000-8511." We will date-stamp the postcard and mail it back to you.

Pub: 12/18/00  
Part: VII  
Consent: 2/16/01

You also may submit comments electronically to the following Internet address:  
<http://dms.dot.gov>.

You may review the public docket containing comments to this proposed regulation at the Department of Transportation (DOT) Dockets Office, located on the plaza level of the Nassif Building at the above address. You may review the public docket in person at this address between 9:00 a.m. and 5:00 p.m., Monday through Friday, except Federal holidays. Also, you may review the public dockets on the Internet at <http://dms.dot.gov>.

**FOR FURTHER INFORMATION CONTACT:** Don Stimson, FAA, Airplane and Flight Crew Interface Branch, ANM-111, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, WA 98055-4056; telephone 425-227-1129; facsimile 425-227-1320, e-mail [don.stimson@faa.gov](mailto:don.stimson@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**How Do I Submit Comments to this NPRM?**

Interested persons are invited to participate in the making of the proposed action by submitting such written data, views, or arguments, as they may desire. Comments relating to the environmental, energy, federalism, or economic impact that might result from adopting the proposals in this document are also invited. Substantive comments should be accompanied by cost estimates. Comments must identify the regulatory docket number and be submitted in duplicate to the DOT Rules Docket address specified above.

All comments received, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking, will be filed in the docket. The docket is available for public inspection before and after the comment closing date.

We will consider all comments received on or before the closing date before taking action on this proposed rulemaking. Comments filed late will be considered as far

as possible without incurring expense or delay. The proposals in this document may be changed in light of the comments received.

### **How Can I Obtain a Copy of this NPRM?**

You may download an electronic copy of this document using a modem and suitable communications software from the FAA regulations section of the Fedworld electronic bulletin board service (telephone: 703-321-3339); the Government Printing Office (GPO)'s electronic bulletin board service (telephone: 202-512-1661); or, if applicable, the FAA's Aviation Rulemaking Advisory Committee bulletin board service (telephone: 800-322-2722 or 202-267-5948).

Internet users may access recently published rulemaking documents at the FAA's web page at <http://www.faa.gov/avr/arm/nprm/nprm.htm> or the GPO's web page at <http://www.access.gpo.gov/nara>.

You may obtain a copy of this document by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue, SW., Washington, DC 20591; or by calling 202- 267-9680. Communications must identify the docket number of this NPRM.

Any person interested in being placed on the mailing list for future rulemaking documents should request from the above office a copy of Advisory Circular 11-2A, "Notice of Proposed Rulemaking Distribution System," which describes the application procedure.

### **What Are the Relevant Airworthiness Standards in the United States?**

In the United States, the airworthiness standards for type certification of transport category airplanes are contained in Title 14, Code of Federal Regulations (CFR) part 25. Manufacturers of transport category airplanes must show that each airplane they produce of a different type design complies with the appropriate part 25 standards. These standards apply to:

- airplanes manufactured within the U.S. for use by U.S.-registered operators, and
- airplanes manufactured in other countries and imported to the U.S. under a bilateral airworthiness agreement.

### **What Are the Relevant Airworthiness Standards in Europe?**

In Europe, the airworthiness standards for type certification of transport category airplanes are contained in Joint Aviation Requirements (JAR)-25, which are based on part 25. These were developed by the Joint Aviation Authorities (JAA) of Europe to provide a common set of airworthiness standards within the European aviation community.

Twenty-three European countries accept airplanes type certificated to the JAR-25 standards, including airplanes manufactured in the U.S. that are type certificated to JAR-25 standards for export to Europe.

### **What is “Harmonization” and How Did it Start?**

Although part 25 and JAR-25 are very similar, they are not identical in every respect. When airplanes are type certificated to both sets of standards, the differences between part 25 and JAR-25 can result in substantial additional costs to manufacturers and operators. These additional costs, however, frequently do not bring about an increase in safety. In many cases, part 25 and JAR-25 may contain different requirements to accomplish the same safety intent. Consequently, manufacturers are usually burdened with meeting the requirements of both sets of standards, although the level of safety is not increased correspondingly.

Recognizing that a common set of standards would not only benefit the aviation industry economically, but also maintain the necessary high level of safety, the FAA and the JAA began an effort in 1988 to “harmonize” their respective aviation standards. The goal of the harmonization effort is to ensure that:

- where possible, standards do not require domestic and foreign parties to manufacture or operate to different standards for each country involved; and

- the standards adopted are mutually acceptable to the FAA and the foreign aviation authorities.

The FAA and JAA have identified a number of significant regulatory differences (SRD) between the wording of part 25 and JAR-25. Both the FAA and the JAA consider “harmonization” of the two sets of standards a high priority.

### **What is ARAC and What Role Does it Play in Harmonization?**

After initiating the first steps towards harmonization, the FAA and JAA soon realized that traditional methods of rulemaking and accommodating different administrative procedures was neither sufficient nor adequate to make appreciable progress towards fulfilling the goal of harmonization. The FAA then identified the Aviation Rulemaking Advisory Committee (ARAC) as an ideal vehicle for assisting in resolving harmonization issues, and, in 1992, the FAA tasked ARAC to undertake the entire harmonization effort.

The FAA had formally established ARAC in 1991 (56 FR 2190, January 22, 1991), to provide advice and recommendations concerning the full range of the FAA's safety-related rulemaking activity. The FAA sought this advice to develop better rules in less overall time and using fewer FAA resources than previously needed. The committee provides the FAA firsthand information and insight from interested parties regarding potential new rules or revisions of existing rules.

There are 64 member organizations on the committee, representing a wide range of interests within the aviation community. Meetings of the committee are open to the public, except as authorized by section 10(d) of the Federal Advisory Committee Act.

The ARAC establishes working groups to develop recommendations for resolving specific airworthiness issues. Tasks assigned to working groups are published in the Federal Register. Although working group meetings are not generally open to the public, the FAA solicits participation in working groups from interested members of the public who possess knowledge or experience in the task areas. Working groups report directly

to the ARAC, and the ARAC must accept a working group proposal before ARAC presents the proposal to the FAA as an advisory committee recommendation.

The activities of the ARAC will not, however, circumvent the public rulemaking procedures; nor is the FAA limited to the rule language "recommended" by ARAC. If the FAA accepts an ARAC recommendation, the agency proceeds with the normal public rulemaking procedures. Any ARAC participation in a rulemaking package is fully disclosed in the public docket.

### **What is the Status of the Harmonization Effort Today?**

Despite the work that ARAC has undertaken to address harmonization, there remain a large number of regulatory differences between part 25 and JAR-25. The current harmonization process is extremely costly and time-consuming for industry, the FAA, and the JAA. Industry has expressed a strong desire to conclude the harmonization program as quickly as possible to alleviate the drain on their resources and to finally establish one acceptable set of standards.

Recently, representatives of the aviation industry [including Aerospace Industries Association of America, Inc. (AIA), General Aviation Manufacturers Association (GAMA), and European Association of Aerospace Industries (AECMA)] proposed an accelerated process to reach harmonization.

### **What is the "Fast Track Harmonization Program"?**

In light of a general agreement among the affected industries and authorities to expedite the harmonization program, the FAA and JAA in March 1999 agreed upon a method to achieve these goals. This method, which the FAA has titled "The Fast Track Harmonization Program," is aimed at expediting the rulemaking process for harmonizing not only the 42 standards that are currently tasked to ARAC for harmonization, but approximately 80 additional standards for part 25 airplanes.

The FAA initiated the Fast Track program on November 26, 1999 (64 FR 66522). This program involves grouping all of the standards needing harmonization into three categories:

**Category 1: Envelope** – For these standards, parallel part 25 and JAR-25 standards would be compared, and harmonization would be reached by accepting the more stringent of the two standards. Thus, the more stringent requirement of one standard would “envelope” the other standard. In some cases, it may be necessary to incorporate parts of both the part 25 and JAR standard to achieve the final, more stringent standard. (This may necessitate that each authority revises its current standard to incorporate more stringent provisions of the other.)

**Category 2: Completed or near complete** – For these standards, ARAC has reached, or has nearly reached, technical agreement or consensus on the new wording of the proposed harmonized standards.

**Category 3: Harmonize** – For these standards, ARAC is not near technical agreement on harmonization, and the parallel part 25 and JAR-25 standards cannot be “enveloped” (as described under Category 1) for reasons of safety or unacceptability. A standard developed under Category 3 would be mutually acceptable to the FAA and JAA, with a consistent means of compliance.

Further details on the Fast Track Program can be found in the tasking statement (64 FR 66522, November 26, 1999) and the first NPRM published under this program, Fire Protection Requirements for Powerplant Installations on Transport Category Airplanes (65 FR 36978, June 12, 2000).

Under this program, the FAA provides ARAC with an opportunity to review, discuss, and comment on the FAA's draft NPRM. In the case of this rulemaking, ARAC suggested a number of editorial changes, which have been incorporated into this NPRM.

## **DISCUSSION OF THE PROPOSAL**

## **How Does This Proposed Regulation Relate to “Fast Track”?**

This proposed regulation results from the recommendations of ARAC submitted under the FAA’s Fast Track Harmonization Program. In this notice, the FAA proposes to amend six sections of the regulations concerning transport category airplane operating limitations and the content of airplane flight manuals (AFM). The six proposed changes are described separately below.

### **CHANGE 1: NEW § 25.1516, “OTHER SPEED LIMITATIONS”**

#### **What is the Underlying Safety Issue Addressed by the Current Standards?**

There may be speeds above which it is unsafe to extend devices such as ram air turbines, thrust reversers, and landing lights into the air stream, or to open windows or doors. The current standards require that speed limitations must be established and made available to the flightcrew to ensure safe operation.

#### **What are the Current 14 CFR and JAR Standards?**

Currently, the FAA relies on § 25.1503 (“Airspeed limitations: general”) and § 25.1533 (“Additional operating limitations”) as the means to fulfill the underlying safety issue. These two sections mandate speed limitations. Additionally, the text of paragraph (a) of § 25.1501 [amendment 25-42 (43 FR 2323, January 16, 1978)] states:

#### **“§ 25.1501 Operating Limitations and Information- General.**

(a) Each operating limitation specified in §§ 25.1503 through 25.1533, and other limitations and information necessary for safe operation, must be established.”

However, JAR-25 (Change 14, Orange Paper 96/1) contains an additional specific paragraph 25.1516 that states:

#### **“JAR 25X1516 Other speed limitations.**

Any other limitation associated with speed must be established.

(See also ACJ 25X1516.)”



**What are the Differences in the Standards and What Do Those Differences Result In?**

Part 25 does not have an explicit requirement to mandate that any other limitation associated with speed be established, while JAR-25 does. There are no practical differences resulting from the difference in the standards, however. Currently, applicants seeking certification of transport airplane designs by both the FAA and JAA must establish all limitations associated with speed.

**What, If Any, Are the Differences in the Means of Compliance?**

There are no differences between part 25 and JAR-25 in the means of compliance with the addressed requirement.

**What Is the Proposed Action?**

The FAA proposes to harmonize the regulations by revising part 25 to adopt the text of JAR 25X1516 as new § 25.1516. This proposed action would codify current FAA policy.

**How Does This Proposed Standard Address the Underlying Safety Issue?**

The proposed standard continues to address the underlying safety issue by requiring that airspeed limitations be established for devices that can open into the air stream in flight. With the addition of this standard, part 25 will have one explicit requirement that applicants establish all limitations associated with speed.

**What is the Effect of the Proposed Standard Relative to the Current Regulations?**

The proposed standard would maintain the same level of safety and may increase the level of safety relative to the current regulations.

**What is the Effect of the Proposed Standard Relative to Current Industry Practice?**

The proposed standard would maintain the same level of safety relative to current industry practice.

### **What Other Options Have Been Considered and Why Were They Not Selected?**

The FAA has not considered another option. The FAA considers the proposed action to be the most appropriate way to fulfill harmonization goals while maintaining safety and without affecting current industry design practices.

### **Who Would Be Affected by the Proposed Change?**

Manufacturers and operators of transport category airplanes could be affected by the proposed change. However, since the proposed change does not result in any practical changes in requirements or practice, there would not be any significant effect.

### **Is Existing FAA Advisory Material Adequate?**

The FAA does not consider that any additional advisory material is needed. Advisory Circular (AC) 25.1581-1, "Airplane Flight Manual," dated July 14, 1997, provides adequate guidance related to the issue addressed by this proposed rulemaking. The advisory material will be fully harmonized when JAA's Advisory Material Joint (AMJ) 25.1581-1 is published.

## **CHANGE 2: § 25.1527, "MAXIMUM OPERATING ALTITUDE"**

### **What is the Underlying Safety Issue Addressed by the Current Standards?**

Operation of a transport category airplane outside of the environmental envelope established for the airplane may be unsafe. Therefore, the boundaries of that envelope must be established to ensure safe operations. Section 25.1527 requires that such boundaries be established.

### **What are the Current 14 CFR and JAR Standards?**

The current text of 14 CFR § 25.1527 is:

"25.1527 Maximum operating altitude.

The maximum altitude up to which operation is allowed, as limited by flight, structural, powerplant, functional, or equipment characteristics, must be established."

The current text of JAR 25.1527 (Change 14, Orange Paper 96/1) is:

“JAR 25.1527 Ambient air temperature and operating altitude.

The extremes of the ambient air temperature and operating altitude for which operation is allowed, as limited by flight, structural, powerplant, functional, or equipment characteristics, must be established.”

**What are the Differences in the Standards and What Do Those Differences Result In?**

Section 25.1527 requires that only the maximum altitude portion of the environmental envelope be established. However, JAR 25.1527 requires that both the minimum and maximum altitudes and ambient temperatures be established. Although this difference exists, the FAA’s policy of applying § 25.1527 is consistent with JAR 25.1527. This is evidenced by the compliance method described in FAA AC 25.1581-1. However, the FAA must rely on the general provisions of § 25.1501(a) (“ . . . other limitations and information necessary for safe operation must be established”) for its regulatory basis.

**What, If Any, Are the Differences in the Means of Compliance?**

Although the explicit standards are different, there are no differences in their application or means of compliance. As stated previously, the FAA relies on both the general provisions of § 25.1501(a) and the guidance in AC 25.1581-1 to apply the requirement.

Currently, there is no relevant JAA advisory material. However, the JAA has advised the FAA that it soon will be issuing AMJ 25.1581, which will contain material harmonized with that in AC 25.1581-1.

**What Is the Proposed Action?**

The FAA proposes to harmonize the regulations by revising § 25. 1527 to adopt the language currently in JAR 25.1527. This proposed action would codify current FAA policy and practice.

**How Does This Proposed Standard Address the Underlying Safety Issue?**

The proposed standard would continue to address the underlying safety issue in the same manner. It would simply codify current FAA policy and application of the regulations.

**What is the Effect of the Proposed Standard Relative to the Current Regulations?**

The proposed standard would maintain the same level and may increase the level of safety relative to the current regulations.

**What is the Effect of the Proposed Standard Relative to Current Industry Practice?**

The proposed standard would maintain the same level of safety relative to current industry practice.

**What Other Options Have Been Considered and Why Were They Not Selected?**

The FAA has not considered another option. The FAA considers the proposed action to be the most appropriate way to fulfill harmonization goals while maintaining safety and without affecting current industry design practices.

**Who Would Be Affected by the Proposed Change?**

Manufacturers and operators of transport category airplanes could be affected by the proposed change. However, since the proposed change does not result in any practical changes in requirements or practice, there would not be any significant effect.

**Is Existing FAA Advisory Material Adequate?**

The FAA considers that current FAA advisory material is adequate. The advisory material related to this regulation will be fully harmonized when JAA publishes AMJ 25.1581.

**CHANGE 3: § 25.1583(c), “OPERATING LIMITATIONS/WEIGHT AND LOADING DISTRIBUTION”**

**What is the Underlying Safety Issue Addressed by the Current Standards?**

Section 25.1583 (as well as JAR 25.1583) currently requires that the limitations established under §§ 25.1501 through 25.1533 be provided in the AFM. To ensure safe operation, any limitations established for the airplane must be made known to the flightcrew. This is accomplished through instrument markings, placards, and the information provided in the AFM.

**What are the Current 14 CFR and JAR Standards?**

The current text of 14 CFR § 25.1583(c) [amendment 25-72 (55 FR 29787, July 20, 1990)] is:

**“§ 25.1583 Operating limitations.**

... (c) Weight and loading distribution. The weight and center of gravity limits required by §§ 25.25 and 25.27 must be furnished in the Airplane Flight Manual. All of the following information must be presented either in the Airplane Flight Manual or in a separate weight and balance control and loading document which is incorporated by reference in the Airplane Flight Manual:

- (1) The condition of the airplane and the items included in the empty weight as defined in accordance with § 25.29.
- (2) Loading instructions necessary to ensure loading of the airplane within the weight and center of gravity limits, and to maintain the loading within these limits in flight.
- (3) If certification for more than one center of gravity range is requested, the appropriate limitations, with regard to weight and loading procedures, for each separate center of gravity range.”

The current text of JAR 25.1583(c) (Change 14, Orange Paper 96/1) is:

“JAR 25.1583 Operating limitations.

... (c) Weight and loading distribution. The weight and centre of gravity limitations established under JAR 25.1519 must be furnished in the aeroplane Flight Manual. All the following information, including weight distribution limitations established under JAR 25.1519, must be presented either in the aeroplane Flight Manual or in a separate weight and balance control and loading document which is incorporated by reference in the aeroplane Flight Manual [see ACJ 25.1583(c)];

(1) The condition of the aeroplane and the items included in the empty weight as defined in accordance with JAR 25.29.

(2) Loading instructions necessary to ensure loading of the aeroplane within the weight and centre of gravity limits, and to maintain the loading within these limits in flight.

(3) If certification for more than one centre of gravity range is requested, the appropriate limitations, with regard to weight and loading procedures, for each separate centre of gravity range.”

### **What are the Differences in the Standards and What Do Those Differences Result In?**

There are no practical differences in the application of the two standards.

However, the references to other standards that appear in JAR 25.1583(c) are more exact than those that appear in § 25.1583(c). The standards referenced are:

<u>SECTION NUMBER</u>	<u>TITLE OF SECTION*</u>
25.23	Load distribution limits
25.25	Weight limits
25.27	Center of gravity limits
25.1519	Weight, center of gravity, and weight distribution

\* The title of each section is the same in both part 25 and JAR-25.

JAR 25.1583(c) requires that the operating limitations established under JAR 25.1519 be provided in the AFM. JAR 25.1519 then requires that weight, center of gravity, and weight distribution limitations, “including those established under JAR 25.23 to JAR 25.27,” be established as operating limitations.

On the other hand, § 25.1583(c) requires that the weight and center of gravity limitations required by §§ 25.25 and 25.27 must be provided in the AFM. Like its counterpart JAR standard, § 25.1519 requires that weight, center of gravity, and weight distribution limitations established §§ 25.23 through 25.27 be established as operating limitations.

Thus, instead of referencing § 25.1519, the requirements of § 25.1583(c) specifically refer to the weight and center of gravity limitations determined under §§ 25.25 and 25.27. This mistakenly excludes any operating limitations established under § 25.23.

#### **What, If Any, Are the Differences in the Means of Compliance?**

Although the explicit standards are different, there are no differences in their application or means of compliance. The FAA’s policy of applying § 25.1583 is consistent with JAR 25.1583. The FAA relies on the general provisions of § 25.1501(a), and the guidance material in AC 25.1581-1 to apply the same requirement.

The JAA has a current Advisory Circular Joint (ACJ) 25.1583 that is relevant and provides some guidance on complying with the standard. However, the JAA has advised

the FAA that it soon will be issuing AMJ 25.1581, which will contain guidance material harmonized with that in AC 25.1581-1.

**What Is the Proposed Action?**

The FAA proposes to harmonize the regulations by revising § 25.1583(c) to adopt the language currently in JAR 25.1583(c). This proposed action would codify current FAA policy.

**How Does This Proposed Standard Address the Underlying Safety Issue?**

The proposed standard would continue to address the underlying safety issue in the same manner. It would simply codify current FAA policy and application of the regulations.

**What is the Effect of the Proposed Standard Relative to the Current Regulations?**

The proposed standard would maintain the same level and may increase the level of safety relative to the current regulations.

**What is the Effect of the Proposed Standard Relative to Current Industry Practice?**

The proposed standard would maintain the same level of safety relative to current industry practice.

**What Other Options Have Been Considered and Why Were They Not Selected?**

The FAA has not considered another option. The FAA considers the proposed action to be the most appropriate way to fulfill harmonization goals while maintaining safety and without affecting current industry design practices.

**Who Would Be Affected by the Proposed Change?**

Manufacturers and operators of transport category airplanes could be affected by the proposed change. However, since the proposed change does not result in any practical changes in requirements or practice, there would not be any significant effect.



### **Is Existing FAA Advisory Material Adequate?**

The FAA considers that current FAA advisory material is adequate. The advisory material related to this regulation will be fully harmonized when JAA publishes AMJ 25.1581.

### **CHANGE 4: § 25.1583(f), “OPERATING LIMITATIONS/ALTITUDES”**

#### **What is the Underlying Safety Issue Addressed by the Current Standards?**

As discussed previously, § 25.1583 (as well as JAR 25.1583) currently requires that the limitations established under §§ 25.1501 through 25.1533 be provided in the AFM. To ensure safe operation, any limitations established for the airplane must be made known to the flightcrew. This is accomplished through instrument markings, placards, and the information provided in the AFM.

#### **What are the Current 14 CFR and JAR Standards?**

The current text of 14 CFR § 25.1583(f) [amendment 25-72 (55 FR 29787, July 20, 1990)] is:

“25.1583 Operating limitations.

... (f) Altitudes. The altitude established under § 25.1527.”

The current text of JAR 25.1583(f) (Change 14, Orange Paper 96/1) is:

“JAR 25.1583 Operating limitations.

... (f) Ambient air temperatures and operating altitudes. The extremes of the ambient air temperatures and operating altitudes established under JAR 25.1527 and an explanation of the limiting factors must be furnished.”

#### **What are the Differences in the Standards and What Do Those Differences Result In?**

Consistent with § 25.1527 (refer to previous discussion), § 25.1583(f) requires that only the maximum altitude portion of the environmental envelope be established. Consistent with JAR 25.1527, JAR 25.1583(f) requires that the limitations relative to

both the minimum and maximum altitudes and ambient temperatures be established. Although the explicit standards are different, there are no differences in their application or means of compliance. The FAA's policy of applying § 25.1583(f) is consistent with JAR 25.1583(f). This is evidenced by the compliance method described in FAA AC 25.1581-1. However, the FAA must rely on the general provisions of § 25.1501(a) for its regulatory basis.

**What, If Any, Are the Differences in the Means of Compliance?**

Although the explicit standards are different, there are no differences in the means of compliance. As stated above, the FAA relies on the general provisions of § 25.1501(a) and the guidance material in AC 25.1581-1 to apply the same requirement.

**What Is the Proposed Action?**

The FAA proposes to harmonize the regulations by revising § 25.1583(f) to adopt the language currently in JAR 25.1583(f). This proposed action would codify current FAA policy.

The current requirement in JAR 25.1583(f) for an explanation of the limiting factors would not be included in the revised § 25.1583(f), however, as this does not represent current practice and the FAA considers it unnecessary for safety.

**How Does This Proposed Standard Address the Underlying Safety Issue?**

The proposed standard would continue to address the underlying safety issue in the same manner. It would simply codify current FAA policy and application of the regulations.

**What is the Effect of the Proposed Standard Relative to the Current Regulations?**

The proposed standard would maintain the same level and may increase the level of safety relative to the current regulations.

### **What is the Effect of the Proposed Standard Relative to Current Industry Practice?**

The proposed standard would maintain the same level of safety relative to current industry practice.

### **What Other Options Have Been Considered and Why Were They Not Selected?**

The FAA has not considered another option. The FAA considers the proposed action to be the most appropriate way to fulfill harmonization goals while maintaining safety and without affecting current industry design practices.

### **Who Would Be Affected by the Proposed Change?**

Manufacturers and operators of transport category airplanes could be affected by the proposed change. However, since the proposed change does not result in any practical changes in requirements or practice, there would not be any significant effect.

### **Is Existing FAA Advisory Material Adequate?**

The FAA considers that current FAA advisory material is adequate. The advisory material related to this regulation will be fully harmonized when JAA publishes AMJ 25.1581.

### **CHANGE 5: § 25.1585, “OPERATING PROCEDURES”**

#### **What is the Underlying Safety Issue Addressed by the Current Standards?**

The primary purpose of the AFM is to provide an authoritative and approved source of information that is considered necessary for safely operating the airplane. Consistent with this purpose, § 25.1585 requires that the AFM must provide those operating procedures related to airworthiness and necessary for safe operation, including those procedures that may be unique to the specific type of airplane.

#### **What are the Current 14 CFR and JAR Standards?**

The current text of 14 CFR § 25.1585 is:

“§ 25.1585 Operating procedures.

(a) Information and instructions regarding the peculiarities of normal operations (including starting and warming the engines, taxiing, operation of wing

flaps, landing gear, and the automatic pilot) must be furnished, together with recommended procedures for--

- (1) Engine failure (including minimum speeds, trim, operation of the remaining engines, and operation of flaps);
  - (2) Stopping the rotation of propellers in flight;
  - (3) Restarting turbine engines in flight (including the effects of altitude);
  - (4) Fire, decompression, and similar emergencies;
  - (5) Ditching [including the procedures based on the requirements of §§ 25.801, 25.807(d), 25.1411, and 25.1415(a) through (e)];
  - (6) Use of ice protection equipment;
  - (7) Use of fuel jettisoning equipment, including any operating precautions relevant to the use of the system;
  - (8) Operation in turbulence for turbine powered airplanes (including recommended turbulence penetration airspeeds, flight peculiarities, and special control instructions);
  - (9) Restoring a deployed thrust reverser intended for ground operation only to the forward thrust position in flight or continuing flight and landing with the thrust reverser in any position except forward thrust; and
  - (10) Disconnecting the battery from its charging source, if compliance is shown with § 25.1353(c)(6)(ii) or (c)(6)(iii).
- (b) Information identifying each operating condition in which the fuel system independence prescribed in § 25.953 is necessary for safety must be furnished, together with instructions for placing the fuel system in a configuration used to show compliance with that section.
- (c) The buffet onset envelopes, determined under § 25.251 must be furnished. The buffet onset envelopes presented may reflect the center of gravity

at which the airplane is normally loaded during cruise if corrections for the effect of different center of gravity locations are furnished.

(d) Information must be furnished which indicates that when the fuel quantity indicator reads “zero” in level flight, any fuel remaining in the fuel tank cannot be used safely in flight.

(e) Information on the total quantity of usable fuel for each fuel tank must be furnished.”

The current text of JAR 25.1585 (Change 14, Orange Paper 96/1) is:

“JAR 25.1585 Operating procedures.

(a) Information and instructions regarding operating procedures must be furnished [see ACJ 25.1585(a)] in substantial accord with the categories described below –

(1) Emergency procedures which are concerned with foreseeable but unusual situations in which immediate and precise action by the crew, as detailed in the recommended procedures, may be expected substantially to reduce the risk of catastrophe.

(2) Other procedures peculiar to the particular type or model encountered in connection with routine operations including malfunction cases and failure conditions, involving the use of special systems and/or the alternative use of regular systems not considered as emergency procedures.

(b) Information or procedures not directly related to airworthiness or not under the control of the crew, must not be included, nor must any procedure which is accepted as basic airmanship.

(c) The buffet onset envelopes, determined under JAR 25.251 must be furnished. The buffet onset envelopes presented may reflect the centre of gravity at which the aeroplane is normally loaded during cruise if

corrections for the effect of different centre of gravity locations are furnished. [See ACJ 25.1585(c).]

(d) Information must be furnished which indicates that when the fuel quantity indicator reads “zero” in level flight, any fuel remaining in the fuel tank cannot be used safely in flight.

(e) Information on the total quantity of usable fuel for each fuel tank must be furnished.”

### **What are the Differences in the Standards and What Do Those Differences Result In?**

There are two differences between the standards. First, the JAR standard does not include the text of current § 25.1585(b), which requires including information in the AFM concerning each operating condition in which the fuel system independence is necessary for safety, and instructions for placing the fuel system in a configuration used to show compliance with § 25.953 (“Fuel system independence”). Lack of such information may compromise the intent of the rules regarding fuel system independence. On this specific issue, the part 25 standard is “more stringent” than the JAR standard. (As discussed later, the JAA intends to revise JAR 25.1585 to add this requirement.)

Second, the text of JAR 25.1585(a) and (b) essentially “updates” the requirements of § 25.1585(a) to better reflect current policy, practices, and interpretations.

These differences do not necessarily entail any substantial differences in the technical requirements for including procedural information in the AFM. If differences in practice have arisen, they may have resulted more from differences in the means of compliance (and interpretation). Harmonizing the relevant guidance material (i.e., FAA’s AC 25.1581-1 and JAA’s soon-to-be published AMJ 25.1581) will reduce the potential for such differences in the future.

### **What, If Any, Are the Differences in the Means of Compliance?**

As one means to demonstrate compliance with § 25.1585, applicants have relied on the guidance material related to the operating procedures section of the AFM that is contained in AC 25.1581-1. The JAA has provided relevant guidance in ACJ's 25.1585(a), 25.1585(c), and 25.251(e). Although there are differences between the texts of the FAA AC and the JAA ACJ's, both authorities agree that the FAA AC represents a harmonized text. The JAA is currently in the process of revising its guidance and will soon publish a new AMJ 25.1581, which will be harmonized with the FAA's AC 25.1581-1.

### **What Is the Proposed Action?**

This action would revise § 25.1585 to incorporate the text of JAR 25.1585. The current text of § 25.1585(b) would be retained, but it would be redesignated as § 25.1585(c). [The JAA intends to revise JAR 25.1585 to incorporate these same requirements, and will designate them as JAR 25.1585(c).] The incorporated text would be revised editorially to simplify it and make it better reflect current practices. (The JAA intends to make these same editorial revisions to JAR 25.1585.)

Although the text of the current § 25.1585(a) could be considered "more stringent" because it is more specific than the JAR as to the procedures that must be furnished in the AFM, it is considered outdated and not completely consistent with current practices. Additionally, some of the mandated procedures are no longer appropriate and other important procedures are not included. The proposed standard would provide a better description of what types of procedures are required to be in the AFM, the specifics of which will depend on the particular design developed by the applicant (i.e., a performance-based requirement).

**How Does This Proposed Standard Address the Underlying Safety Issue?**

The proposed standard would continue to address the underlying safety issue in the same manner by requiring information and procedures necessary for airworthiness and operational safety to be furnished in the AFM.

**What is the Effect of the Proposed Standard Relative to the Current Regulations?**

The proposed standard would maintain the same level and may increase the level of safety relative to the current regulations.

**What is the Effect of the Proposed Standard Relative to Current Industry Practice?**

The proposed standard would maintain the same level of safety relative to current industry practice.

**What Other Options Have Been Considered and Why Were They Not Selected?**

The FAA did not consider any option other than harmonizing this item with the JAR. The JAR 25.1585(a) standard is considered to be closer to current practices than the manner in which § 25.1585(a) is actually applied. The FAA considers the proposed action to be the most appropriate way to fulfill harmonization goals while maintaining safety and without affecting current industry design practices.

**Who Would Be Affected by the Proposed Change?**

Manufacturers and operators of transport category airplanes could be affected by the proposed change. However, since the proposed change does not result in any practical changes in requirements or practice, there would not be any significant effect.

**Is Existing FAA Advisory Material Adequate?**

The FAA considers that current FAA advisory material is adequate. The advisory material related to this regulation will be fully harmonized when JAA publishes AMJ 25.1581.



## **CHANGE 6: § 25.1587, “PERFORMANCE INFORMATION”**

### **What is the Underlying Safety Issue Addressed by the Current Standards?**

The primary purpose of the AFM is to provide an authoritative and approved source of information considered necessary for safely operating the airplane. Consistent with this purpose, § 25.1587 requires that performance information related to airworthiness and necessary for safe operation must be provided in the AFM.

### **What are the Current 14 CFR and JAR Standards?**

The current text of 14 CFR § 25.1587 [amendment 25-72 (55 FR 29787, July 20, 1990)] is:

#### **“§ 25.1587 Performance information.**

(a) Each Airplane Flight Manual must contain information to permit conversion of the indicated temperature to free air temperature if other than a free air temperature indicator is used to comply with the requirements of § 25.1303(a)(1).

(b) Each Airplane Flight Manual must contain the performance information computed under the applicable provisions of this part for the weights, altitudes, temperatures, wind components, and runway gradients, as applicable within the operational limits of the airplane, and must contain the following:

(1) The conditions under which the performance information was obtained, including the speeds associated with the performance information.

(2)  $V_s$  determined in accordance with § 25.103.

(3) The following performance information (determined by extrapolation and computed for the range of weights between the maximum landing and maximum takeoff weights):

(i) Climb in the landing configuration.

(ii) Climb in the approach configuration.

(iii) Landing distance.

(4) Procedures established under § 25.101(f), (g) and (h) that are related to the limitations and information required by § 25.1533 and by this paragraph. These procedures must be in the form of guidance material, including any relevant limitations or information.

(5) An explanation of significant or unusual flight or ground handling characteristics of the airplane. “

The current text of JAR 25.1587 (Change 14, Orange Paper 96/1) is:

“JAR 25.1587 Performance information.

“(a) Not required for JAR-25.

(b) Each aeroplane Flight Manual must contain the performance information computed under the applicable provisions of this JAR-25 (including JAR 25.115, 25.123, and 25.125 for the weights, altitudes, temperatures, wind components, and runway gradients, as applicable) within the operational limits of the aeroplane, and must contain the following:

(1) The condition of power, configuration, speeds and the procedures for handling the aeroplane and any system having a significant effect on performance upon which the performance graphs are based must be stated in each case. (See ACJ 25.1587(b)(1).)

(2) Not required for JAR-25 as this sub-paragraph is covered by the opening sentence of sub-paragraph (b).

(3) The following gross performance information (determined by extrapolation and computed for the range of weights between the maximum landing weight and maximum takeoff weight) must be provided:

(i) Climb in the landing configuration.

(ii) Climb in the approach configuration.

(iii) Landing distance.

(4) Procedures established under § 25.101 (f) and (g) that are related to the limitations and information required by JAR 25.1533 and by this paragraph must be stated in the form of guidance material, including any relevant limitation or information.

(5) An explanation of significant or unusual flight or ground handling characteristics of the aeroplane.

(6) Corrections to indicated values of airspeed, altitude and outside air temperature.

(7) An explanation of operational landing runway length factors included in the presentation of the landing distance, if appropriate. (See ACJ 25.1587(b)(7).)”

### **What are the Differences in the Standards and What Do Those Differences Result In?**

There are several differences between the standards:

- Part 25 does not include the text of JAR 25.1587(b)(6) or (b)(7).
- The JAR does not include the text of § 25.1587(a) or (b)(2).
- The JAR contains some wording differences in the text that better reflect current interpretations and practices.

These differences do not necessarily entail any substantial differences in technical requirements for including performance information in the AFM. If differences in practice have arisen, they would have resulted more from differences in the means of compliance (and interpretation). Harmonizing the relevant guidance material (i.e., FAA’s AC 25.1581-1 and JAA’s soon-to-be published AMJ 25.1581) will reduce the potential for such differences in the future.

**What, If Any, Are the Differences in the Means of Compliance?**

As one means to demonstrate compliance with § 25.1585, applicants have relied on the guidance material related to the operating procedures section of the AFM that is contained in AC 25.1581-1. The JAA has provided relevant guidance in ACJ's 25.1587(b)(1) and ACJ 25.1587(b)(7). Although there are differences between the texts of the FAA AC and the JAA ACJ's, both authorities agree that the FAA AC represents a harmonized text. The JAA is currently in the process of revising its guidance and will soon publish a new AMJ 25.1581, which will be harmonized with the FAA's AC 25.1581-1.

**What Is the Proposed Action?**

The FAA proposes to harmonize the regulations by revising § 25.1587 to adopt portions of the text of JAR 25.1587. This proposed action would codify current FAA policy.

In general, where the standards are different, the JAR standard more properly reflects current practices and is proposed as the harmonized standard. In areas where there is a requirement in one standard that does not appear in the other standard, that requirement has been carried over into the proposed harmonized standard. Some minor non-substantive editorial changes also would be included in the proposed standard.

**How Does This Proposed Standard Address the Underlying Safety Issue?**

The proposed standard would continue to address the underlying safety issue in the same manner by requiring performance information necessary for airworthiness and operational safety to be furnished in the AFM.

**What is the Effect of the Proposed Standard Relative to the Current Regulations?**

The proposed standard would maintain the same level and may increase the level of safety relative to the current regulations.

**What is the Effect of the Proposed Standard Relative to Current Industry Practice?**

The proposed standard would maintain the same level of safety relative to current industry practice.

**What Other Options Have Been Considered and Why Were They Not Selected?**

The FAA has not considered another option. The FAA considers the proposed action to be the most appropriate way to fulfill harmonization goals while maintaining safety and without affecting current industry design practices.

**Who Would Be Affected by the Proposed Change?**

Manufacturers and operators of transport category airplanes could be affected by the proposed change. However, since the proposed change does not result in any practical changes in requirements or practice, there would not be any significant effect.

**Is Existing FAA Advisory Material Adequate?**

The FAA considers that current FAA advisory material is adequate. The advisory material related to this regulation will be fully harmonized when JAA publishes AM 25.1581.

**What Regulatory Analyses and Assessments Has the FAA Conducted?****Regulatory Evaluation Summary**

Proposed changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 as amended requires agencies to analyze the economic effect of regulatory changes on small entities. Third, OMB directs agencies to assess the effect of regulatory changes on international trade. And fourth, the Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal

governments, in the aggregate, or by the private sector of \$100 million or more annually (adjusted for inflation).

In conducting these analyses, the FAA has determined that this proposal has benefits, but no more than minimal costs, and that it is not “a significant regulatory action” under section 3(f) of Executive Order 12866. This proposal would not have a significant economic impact on a substantial number of small entities, reduces barriers to international trade, and imposes no unfunded mandates on state, local, or tribal governments, or the private sector.

Because there are no more than minimal costs associated with this proposal, it does not warrant the preparation of a full economic evaluation for placement in the docket. The basis of this statement and for the above determinations is summarized in this section of the preamble. The FAA requests comments with supporting documentation in regard to the conclusions contained in this section.

Currently, airplane manufacturers must satisfy both the requirements of 14 CFR part 25 standards and the European JAR certification standards to market transport category aircraft in both the United States and Europe. Meeting two sets of certification requirements raises the cost of developing a new transport category airplane often with no increase in safety. In the interest of fostering international trade, lowering the cost of aircraft development, and making the certification process more efficient, the FAA, JAA, and aircraft manufacturers have been working to create to the maximum possible extent a single set of certification requirements accepted in both the United States and Europe. These efforts are referred to as harmonization.

In this notice, the FAA proposes to amend six sections of the regulations concerning transport category airplane operating limitations and the content of airplane flight manuals (AFM). The six proposed changes are described separately below.

Change 1: New § 25.1516, “Other Speed Limitations”

U.S manufacturers of part 25 airplanes comply now with § 25.1501 through the advice of FAA Advisory Circular (AC) 25.1581-1. They also would comply with the proposed new § 25.1516, which would be harmonized to existing JAR 25X1516, because § 25.1501 encompasses the requirements of the proposed new FAA rule.

The FAA expects that the result of this proposed harmonization action will be that compliance with either § 25.1516 or JAR 25X1516 will mean compliance with the other. Further, because proposed new JAA advisory material would be harmonized to FAA AC 25.1581-1, U.S. manufacturers would not need to change the means through which they comply with these harmonized rules.

Change 2: § 25.1527, “Maximum Operating Altitude”

U.S manufacturers of part 25 airplanes comply now with § 25.1501 through the advice of FAA AC 25.1581-1. They also would comply with the proposed amendment of § 25.1527 to harmonize to JAR 25.1527, because § 25.1501 encompasses the requirements of § 25.1527 as it is proposed to be amended.

The FAA expects that the result of this proposed harmonization action will be that compliance with either § 25.1527 or JAR 25.1527 will mean compliance with the other. Further, because proposed new JAA advisory material would be harmonized to FAA AC 25.1581-1, U.S. manufacturers would not need to change the means through which they comply with these harmonized rules.

Change 3: § 25.1583(c), “Operating Limitations/Weight and Loading Distribution”

U.S. manufacturers of part 25 airplanes comply now with § 25.1501 through the advice of FAA Advisory Circular 25.1581-1. They also would comply with the proposed amendment of § 25.1583(c) that would harmonize it to the existing JAR 25.1583(c), because § 25.1501 encompasses § 25.1583(c) as it is proposed to be amended.

This change would amend § 25.1583(c) to eliminate its inclusion of direct references to § 25.25 and to § 25.27 and its concomitant omission of a direct reference to

§ 25.23. By amending § 25.1583(c) so that it refers directly to § 25.1519, which includes references to these three sections, they -- § 25.25, § 25.27, and § 25.23 -- would be incorporated into the scope of § 25.1583. Thus, all three sections would be referenced indirectly by § 25.1583(c) through its reference to § 25.1519.

The FAA expects that the result of this proposed harmonization action will be that compliance with either § 25.1583(c) or JAR 25.1583(c) will mean compliance with the other. Further, because proposed new JAA advisory material would be harmonized to FAA AC 25.1581-1, U.S. manufacturers would not need to change the means through which they comply with the harmonized rules.

Change 4: § 25.1583(f), “Operating Limitations/Altitudes”

U.S. manufacturers of part 25 airplanes comply now with § 25.1501 through the advice of FAA AC 25.1581-1. They also would comply with this proposed amendment that would harmonize § 25.1583(f) to the existing JAR 25.1583(f), because § 25.1501 encompasses the requirements of § 25.1583(f) as it is proposed to be amended.

The FAA expects the result of this proposed harmonization action will be that compliance with either § 25.1583(f) or JAR 25.1583(f) will mean compliance with the other. Further, because proposed new JAA advisory material would be harmonized to FAA AC 25.1581-1, U.S. manufacturers would not need to change the means through which they comply with these harmonized rules.

Change 5: § 25.1585, “Operating Procedures”

U.S. manufacturers of part 25 airplanes comply now with existing § 25.1585, which encompasses and exceeds the scope of existing JAR 25.1585. They also would comply with the proposed amendment to harmonize § 25.1585 to JAR 25.1585.

The part 25 requirement would be harmonized to the JAR because, with one exception, the content of the JAA rule better presents FAA’s current policy, practices, and interpretations than does the content of the FAA rule. The single exception is the omission in JAR 25.1585 of an equivalent to § 25.1585(b). This paragraph requires



information and instructions to be furnished toward compliance with § 25.953. The harmonized FAA/JAA standard would maintain this FAA requirement. Harmonization of related advisory material would be complete when JAA advisory material is harmonized to existing FAA advisory material.

The FAA expects the result of this proposed harmonization action will be that compliance with either § 25.1585 or JAR 25.1585 will mean compliance with the other. Further, no reduction in the level of safety would result from this action. Neither the proposed harmonization of the rules, nor the harmonization of proposed associated JAA advisory material to the FAA advisory material would present U.S. manufacturers with any practical change in their procedures.

Change 6: § 25.1587, "Performance Information"

U.S. manufacturers of part 25 airplanes comply now separately with existing § 25.1587 and JAR 25.1587, which differ in some particulars. This action would result in a harmonized FAA/JAA standard such that manufacturers' compliance with either rule would mean compliance with the other.

The harmonized standard would incorporate the requirements of § 25.1587(a) and of § 25.1587(b)(2), which now are lacking in the JAR. It also would incorporate the requirements of JAR 25.1587(b)(6) and of JAR 25.1587(b)(7), which now are lacking in part 25. Some minor non-substantive editorial changes also would be included in the proposed harmonized standard. Harmonization of related advisory material would be complete when JAA advisory material is harmonized to existing FAA advisory material.

The FAA expects the result of this proposed harmonization action would be that compliance with either § 25.1587 or JAR 25.1587 will mean compliance with the other. Neither the proposed harmonization of the rules, nor the harmonization of proposed associated JAA advisory material to the FAA advisory material would present U.S. manufacturers with any practical change in their procedures.

### Benefits and Costs of Proposed Changes

The effect of these proposed regulatory changes would be to improve the codification of current certification practice and no consequent substantive change either in practice or in costs of compliance would result. Thus, the FAA anticipates that minimal additional costs would be associated with compliance to this rule.

The FAA expects that these proposed changes would result in benefits in the form of cost savings received by affected manufacturers because they would be able to effect compliance with both part 25 and JAR requirements in a simpler and more direct fashion. Further, the FAA expects that the existing level of safety will be maintained.

The FAA has not attempted to quantify the benefits from cost savings that may accrue because of this rule beyond noting that while the savings from this rule may be small, they are part of a potentially large savings from the harmonization program. The FAA concludes that, because there is agreement among potentially affected airplane manufacturers that no costs and no more than minimal savings will result, further analysis is not required. The FAA requests that those who believe this action would result in a cost increase provide to the Docket their basis for such a belief.

### **Initial Regulatory Flexibility Determination**

The Regulatory Flexibility Act of 1980 (RFA), of 1980 as amended, establishes as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the size of the business, organizations, and governmental jurisdictions subject to regulation. To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant impact on a substantial number of small entities. If the determination is that the rule will, the Agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed or final rule is not expected to have a significant impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

The FAA believes that this proposed rule would not have a significant impact on a substantial number of small entities for two reasons: First, the net economic effect of the proposed rule is minimal reduction of regulatory cost. Second, all United States transport-aircraft category manufacturers exceed the Small Business Administration small-entity criteria of 1,500 employees for aircraft manufacturers. United States part 25 airplane manufacturers include: Boeing, Cessna Aircraft, Gulfstream Aerospace, Learjet (owned by Bombardier), Lockheed Martin, McDonnell Douglas (a wholly owned subsidiary of The Boeing Company), Raytheon Aircraft, and Sabreliner Corporation. Based on these two reasons, the FAA certifies that this proposed rule would not have a significant impact on a substantial number of small entities.

#### **International Trade Impact Assessment**

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. In addition, consistent with the Administration's belief in the general superiority and desirability of free trade, it is the policy of the Administration to remove or diminish to the extent feasible, barriers to international trade, including both barriers affecting the export of American goods and services to foreign countries and barriers affecting the import of foreign goods and services into the United States.

In accordance with that statute and policy, the FAA has assessed the potential effects of these six proposed harmonization actions and has determined that they would reduce trade barriers by eliminating the differences between FAA and JAA regulations.

### **Unfunded Mandates Reform Act**

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), codified in 2 U.S.C. 1532-1538, enacted as Public Law 104-4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any one year. Because this proposed rule does not contain a Federal, another governmental, or a private sector mandate that exceeds \$100 million in any year, the assessment requirements of the Act do not apply.

### **What Other Assessments Has the FAA Conducted?**

#### **Executive Order 13132, Federalism**

The FAA has analyzed this proposed rule and the principles and criteria of Executive Order 13132, Federalism. The FAA has determined that this action would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, the FAA has determined that this notice of proposed rulemaking would not have federalism implications.

### **Paperwork Reduction Act**

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on

the public. We have determined that there are no new information collection requirements associated with this proposed rule.

### **International Compatibility**

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA determined that there are no ICAO Standards and Recommended Practices that correspond to this proposed regulation.

### **Environmental Analysis**

FAA Order 1050.1D defines FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act (NEPA) environmental impact statement. In accordance with FAA Order 1050.1D, appendix 4, paragraph 4(j), this proposed rulemaking action qualifies for a categorical exclusion.

### **Energy Impact**

The energy impact of the proposed rule has been assessed in accordance with the Energy Policy and Conservation Act (EPCA) and Public Law 94-163, as amended (43 U.S.C. 6362), and FAA Order 1053.1. It has been determined that it is not a major regulatory action under the provisions of the EPCA.

### **Regulations Affecting Intrastate Aviation in Alaska**

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the Administrator, when modifying regulations in Title 14 of the CFR in a manner affecting intrastate aviation in Alaska, to consider the extent to which Alaska is not served by transportation modes other than aviation, and to establish such regulatory distinctions as he or she considers appropriate. Because this proposed rule would apply to the certification of future designs of transport category airplanes and their subsequent operation, it could, if adopted, affect intrastate aviation in Alaska. The FAA therefore

specifically requests comments on whether there is justification for applying the proposed rule differently to intrastate operations in Alaska.

### **Plain Language**

In response to the June 1, 1998, Presidential memorandum regarding the issue of plain language, the FAA re-examined the writing style currently used in the development of regulations. The memorandum requires Federal agencies to communicate clearly with the public. We are interested in your comments on whether the style of this document is clear, and in any other suggestions you might have to improve the clarity of FAA communications that affect you. You can get more information about the Presidential memorandum and the plain language initiative at <http://www.plainlanguage.gov>.

### **List of Subjects in 14 CFR Part 25:**

Aircraft, Aviation safety, Reporting and record keeping requirements, Safety, Transportation.

### **The Proposed Amendment**

In consideration of the foregoing, the Federal Aviation Administration proposes to amend part 25 of Title 14, Code of Federal Regulations, as follows:

### **PART 25 - AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES**

1. The authority citation for Part 25 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44702, and 44704

2. Add new § 25.1516 to read as follows:

#### **§ 25.1516 Other speed limitations.**

Any other limitation associated with speed must be established.

- Revise*
3. Amend § 25.1527 by ~~revising the text~~ to read as follows:
- nm*  
*12-13-00*

**§ 25.1527 Maximum operating altitude.**

The extremes of the ambient air temperature and operating altitude for which operation is allowed, as limited by flight, structural, powerplant, functional, or equipment characteristics, must be established.

4. Amend § 25.1583 by ~~revising the text of~~ paragraphs (c) and (f) to read as follows:

**§ 25.1583 Operating limitations.**

\* \* \* \* \*

(c) Weight and loading distribution. The weight and center of gravity limitations established under § 25.1519 must be furnished in the Airplane Flight Manual. All of the following information, including the weight distribution limitations established under § 25.1519, must be presented either in the Airplane Flight Manual or in a separate weight and balance control and loading document that is incorporated by reference in the Airplane Flight Manual;

(1) The condition of the airplane and the items included in the empty weight as defined in accordance with § 25.29.

(2) Loading instructions necessary to ensure loading of the airplane within the weight and center of gravity limits, and to maintain the loading within these limits in flight.

(3) If certification for more than one center of gravity range is requested, the appropriate limitations, with regard to weight and loading procedures, for each separate center of gravity range.

\* \* \* \* \*

(f) Ambient air temperatures and operating altitudes. The extremes of the ambient air temperatures and operating altitudes established under § 25.1527 must be furnished.

\* \* \* \* \*

5. Amend § 25.1585 by ~~revising the text~~ to read as follows:

**§ 25.1585 Operating procedures.**

- (a) Operating procedures must be furnished for –
- (1) Normal procedures peculiar to the particular type or model encountered in connection with routine operations;
  - (2) Non-normal procedures for malfunction cases and failure conditions involving the use of special systems or the alternative use of regular systems; and
  - (3) Emergency procedures for foreseeable but unusual situations in which immediate and precise action by the crew may be expected to substantially reduce the risk of catastrophe.
- (b) Information or procedures not directly related to airworthiness or not under the control of the crew, must not be included, nor must any procedure that is accepted as basic airmanship.
- (c) Information identifying each operating condition in which the fuel system independence prescribed in § 25.953 is necessary for safety must be furnished, together with instructions for placing the fuel system in a configuration used to show compliance with that section.
- (d) The buffet onset envelopes, determined under § 25.251 must be furnished. The buffet onset envelopes presented may reflect the center of gravity at which the airplane is normally loaded during cruise if corrections for the effect of different center of gravity locations are furnished.



(e) Information must be furnished that indicates that when the fuel quantity indicator reads "zero" in level flight, any fuel remaining in the fuel tank cannot be used safely in flight.

(f) Information on the total quantity of usable fuel for each fuel tank must be furnished.

6. *Revise* Amend § 25.1587 by ~~revising the text~~ to read as follows:

**§ 25.1587 Performance information.**

(a) Each Airplane Flight Manual must contain information to permit conversion of the indicated temperature to free air temperature if other than a free air temperature indicator is used to comply with the requirements of § 25.1303(a)(1).

(b) Each Airplane Flight Manual must contain the performance information computed under the applicable provisions of this part (including §§ 25.115, 25.123, and 25.125 for the weights, altitudes, temperatures, wind components, and runway gradients, as applicable) within the operational limits of the airplane, and must contain the following:

(1) In each case, the conditions of power, configuration, and speeds, and the procedures for handling the airplane and any system having a significant effect on the performance information.

(2)  $V_S$  determined in accordance with § 25.103.

(3) The following performance information (determined by extrapolation and computed for the range of weights between the maximum landing weight and the maximum takeoff weight):

(i) Climb in the landing configuration.

(ii) Climb in the approach configuration.

(iii) Landing distance.

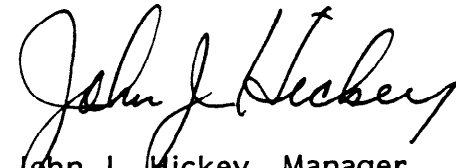
(4) Procedures established under § 25.101(f) and (g) that are related to the limitations and information required by § 25.1533 and by this paragraph in the form of guidance material, including any relevant limitations or information.

(5) An explanation of significant or unusual flight or ground handling characteristics of the airplane.

(6) Corrections to indicated values of airspeed, altitude, and outside air temperature.

(7) An explanation of operational landing runway length factors included in the presentation of the landing distance, if appropriate.

Issued in Renton, Washington, on December 4, 2000.

A handwritten signature in black ink, reading "John J. Mickey". The signature is fluid and cursive, with the first name "John" and last name "Mickey" clearly legible.

John J. Mickey, Manager  
Transport Airplane Directorate  
Aircraft Certification Service